

**Abstract**

A method for producing a cathode material for a secondary battery, characterized in that it comprises admixing a compound liberating a phosphate ion in a solution (phosphoric acid  $H_3PO_4$ , phosphorus pentoxide  $PO_5$ , ammonium dihydrogenphosphate  $NH_4H_2PO_4$  and the like), water and metallic iron, adding lithium carbonate, lithium hydroxide or a hydrate thereof to the resultant mixture, and firing the resultant reaction product , to thereby synthesize  $LiFePO_4$ .